Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
FURTHER STREAMLINING PART 25 RULES GOVERNING SATELLITE SERVICES	)	IB Docket No. 18-314

REPLY OF SPACE EXPLORATION TECHNOLOGIES CORP.

Space Exploration Technologies Corp. ("SpaceX") hereby replies to the Comments filed by Telesat Canada ("Telesat") and the Opposition filed by Kuiper Systems LLC ("Amazon") in response to SpaceX's petition for reconsideration in this proceeding.[1] SpaceX urged the Commission to reconsider its decision in the *Streamlining Order*[2] to lengthen by 500% the build-out period for individually licensed earth stations authorized through Section 25.136 of the Commission's rules, which establishes limitations on earth station deployment in the 27.5-28.35 GHz band shared with the Upper Microwave Flexible Use Service ("UMFUS"). SpaceX argued that this rule would needlessly create the incentive and ability to warehouse valuable spectrum resources and that other alternatives could allow reasonable accommodations without the same deleterious consequences.[3]

At the outset, we must dispense with the completely erroneous procedural argument raised by Amazon. Specifically, Amazon asserts that a petition for reconsideration must rely on facts or

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1 *See* Comments of Telesat Canada, IB Docket No. 18-314 (May 6, 2021) ("Telesat Comments"); Opposition of Kuiper Systems LLC, IB Docket No. 18-314 (May 6, 2021) ("Amazon Opposition").

2 *Further Streamlining Part 25 Rules Governing Satellite Services*, 35 FCC Rcd. 13285 (2020) ("*Streamlining Order*"); 47 C.F.R. § 25.133(a).

3 *See* Petition for Reconsideration of Space Exploration Technologies Corp., IB Docket No. 18-314 (Mar. 31, 2021) ("SpaceX Petition").

arguments that have not previously been presented to the Commission.[4] However, the section of the Commission's rules Amazon quotes simply establishes the circumstances under which a petition for reconsideration will be granted *if* it relies on facts or arguments not previously presented to the Commission.[5] Thus, far from being a condition precedent to seeking reconsideration, presenting new facts and arguments actually results in a higher burden for a petitioner. Moreover, SpaceX's Petition does not simply restate arguments made in the initial proceeding, but directly responds to the Commission's justifications for the new rule—which, of course, could not have been known prior to issuance of the *Streamlining Order*.[6] Accordingly, the Commission should quickly reject Amazon's procedural objection.

In its Petition, SpaceX drew a distinction between non-geostationary orbit ("NGSO") and geostationary orbit ("GSO") satellite systems, arguing that the former would typically require deployment of many more gateway earth stations than the latter and therefore would be particularly susceptible to warehousing incentives from a longer deployment timeline. However, both Telesat and Amazon call that assumption into question. As an example, they cite the fact that Viasat, Inc. ("Viasat") has announced its intention to apply for hundreds of gateways to support its GSO system, increasing the number by "almost a factor of 10" for ViaSat-3.[7] Indeed, over the last two months alone, Viasat has applied for 35 new gateway earth stations.[8] From this, Telesat argues that there is no reason to treat NGSO and GSO systems differently under the rule, and it would

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4 Amazon Opposition at 1-2 (quoting 47 C.F.R. § 1.429(b)).

5 *See* 47 C.F.R. § 1.429(b).

6 *See* SpaceX Petition at 4-5.

7 *See* Telesat Comments at 3 n.6 and Amazon Opposition at 3-4 n.11 (both citing Caleb Henry, *ViaSat plans massive ground network of smaller gateways for ViaSat-2 and ViaSat-3 satellites*, SPACENEWS (May 25, 2017), https://spacenews.com/viasat-plans-massive-ground-network-of-smaller-gateways-for-viasat-2-and-viasat-3-satellites/).

8 *See* IBFS File Nos. SES-LIC-20210323-00555 through -00559; SES-LIC-20210402-00609 through -00614; SES-LIC-20210409-00642 through -00658; SES-LIC-20210416-00706 through 00709 and -00713 through -00715.

have no objection to a reasonable limit on the number of gateway earth stations operating with either type of satellite system in the band shared with UMFUS that are afforded a longer timeline for deployment.[9] In light of the developing evidence of more numerous GSO deployments, SpaceX agrees with Telesat that its reconsideration request should be broadened to cover both GSO and NGSO systems.

Although Amazon also sees no basis for distinguishing between GSO and NGSO systems, it opposes the revision suggested by SpaceX. Amazon favors a regime that would allow any satellite operator to hold onto valuable spectrum and earth station sites for years without deploying, much as Amazon has held onto its space station license for months without taking any steps to address the conditions for deployment imposed therein.[10] Here, Amazon seeks to justify delays in earth station deployment by raising an argument the Commission has already rejected in the context of space station licensing. Specifically, Amazon argues that its costs in licensing an earth station would outweigh the benefits it would receive from depriving competitors for years of scarce resources.[11] Yet in denying a nearly identical argument in the space station licensing context, the Commission concluded that despite the cost and effort involved in licensing (which is much lower for earth stations), the danger of warehousing justified significant additional safeguards, including limits on the number of pending space station applications and unbuilt licenses any one operator could have pending at one time.[12] Moreover, the Commission found that such limits would

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9 *See* Telesat Comments at 3.

10 *See Kuiper Systems, LLC*, 35 FCC Rcd. 8324, ¶¶ 59(a), 64 (2020) ("*Amazon Authorization*") (requiring further showings on interference to other NGSO FSS systems and orbital debris mitigation).

11 *See* Amazon Opposition at 3.

12 *See* 47 C.F.R. § 25.159 (establishing limits on pending applications and unbuilt satellite systems).

"restrain speculation without restricting applicants' business plans."[13] The same is even more true with respect to earth stations that are significantly less expensive to license.

In addition, recent evidence suggests that speculation is already occurring. As CTIA has noted, Viasat's CEO Rick Baldridge recently explained that the company's "top goal" is finding a low Earth orbit satellite system from which it can lease capacity, and that the company's pending application for authorization to operate 288 NGSO satellites is merely a "backup plan" in case the company cannot find a leasing partner, noting that the company "had to get in line."[14] And Viasat has already acknowledged that the primary purpose of its NGSO application in the first place is to game the Commission's support programs. To the extent Viasat secures authorizations for provisional earth stations sites that it would only use if its primary option failed, Viasat would effectively reduce the options available to other satellite operators who are ready to use those spectrum and location resources to actually provide services to American consumers today. That cannot be the sort of spectrum management the Commission intended.

Amazon also claims that allowing it to prevent others from using gateway locations while not using the locations themselves for five or six years would afford it "operational flexibility." As is often the case with Amazon, it seeks to claim regulatory advantages like flexibility for its slow business plans, while denying those same advantages to those operators that move forward expeditiously to develop both space and earth aspects of their systems.[15] Amazon is correct to the extent it is implying that SpaceX has moved forward faster than any other operator licensed in the

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[13] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, 18 FCC Rcd. 10760, ¶ 230 (2003) (limiting pending applications to five GSO orbit locations or one NGSO satellite system per frequency band).

[14] *See* Opposition of CTIA, IB Docket No. 18-314, at 5 & n.16 (May 6, 2021) (citing Matt Daneman, *Viasat CEO Cites Challenges Readying Global Satellite Broadband*, COMMUNICATIONS DAILY (Mar. 16, 2021)).

[15] *See* Amazon Opposition at 3-5.

recent NGSO FSS processing rounds, and as part of that process has applied for gateways in batches to support the phased roll-out of its service across the country.

But Amazon's claim that it is trying to design its nascent satellite system in concert with its ground network is strange, considering that even now—ten months after receiving its space station authorization—it still has yet to begin the process of satisfying the fundamental conditions of that authorization. Those missing submissions include basic showings, such as a demonstration of how Amazon will protect NGSO systems authorized in an earlier processing round and how its authorization should be modified to reflect an updated orbital debris mitigation plan.[16] Without being able to provide even these rudimentary showings, Amazon provides no reason why it requires the "flexibility" to hold valuable gateway sites in reserve for years in case its system were ultimately in a position to use them, while at the same time denying those sites to competitors able to put them to productive use immediately. The Commission should not favor those operators who wish to delay deployment (perhaps indefinitely) at the expense of those who move forward expeditiously to offer service to otherwise underserved or unserved Americans.

Lastly, Amazon argues that revising the rule now would be premature, as doing so would deprive the Commission of the opportunity to gather additional data with which to evaluate the impact of the rule.[17] But given the obvious warehousing incentives the rule creates—and how some, including Amazon, are already acquiring sites to be held in reserve—the Commission need not wait for several years of dysfunction in the satellite market and denial of service to American consumers to demonstrate the need for reform. Moreover, denying important gateway locations for systems at these critical stages in an actual deployment can cause long term harm to

[16] *See Amazon Authorization* ¶¶ 59(a), 64.

[17] *See* Amazon Opposition at 5.

customers—especially when those sites will not otherwise be put to use for the better part of a decade, if at all. The Commission should recognize the significant potential for valuable spectrum resources to go unused due to the unique combination of an extended build-out timeline and a frequency band where the significant restrictions imposed on earth station siting can enable one operator to preempt deployment by its competitors.

Accordingly, SpaceX urges the Commission to reconsider its revision allowing extended deployment timelines with respect to earth stations communicating with NGSO and GSO systems that operate in the frequency bands shared with UMFUS that are subject to Section 25.136.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that, on this 17th day of May, 2021, a copy of the foregoing pleading was served by first class U.S. mail upon:

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